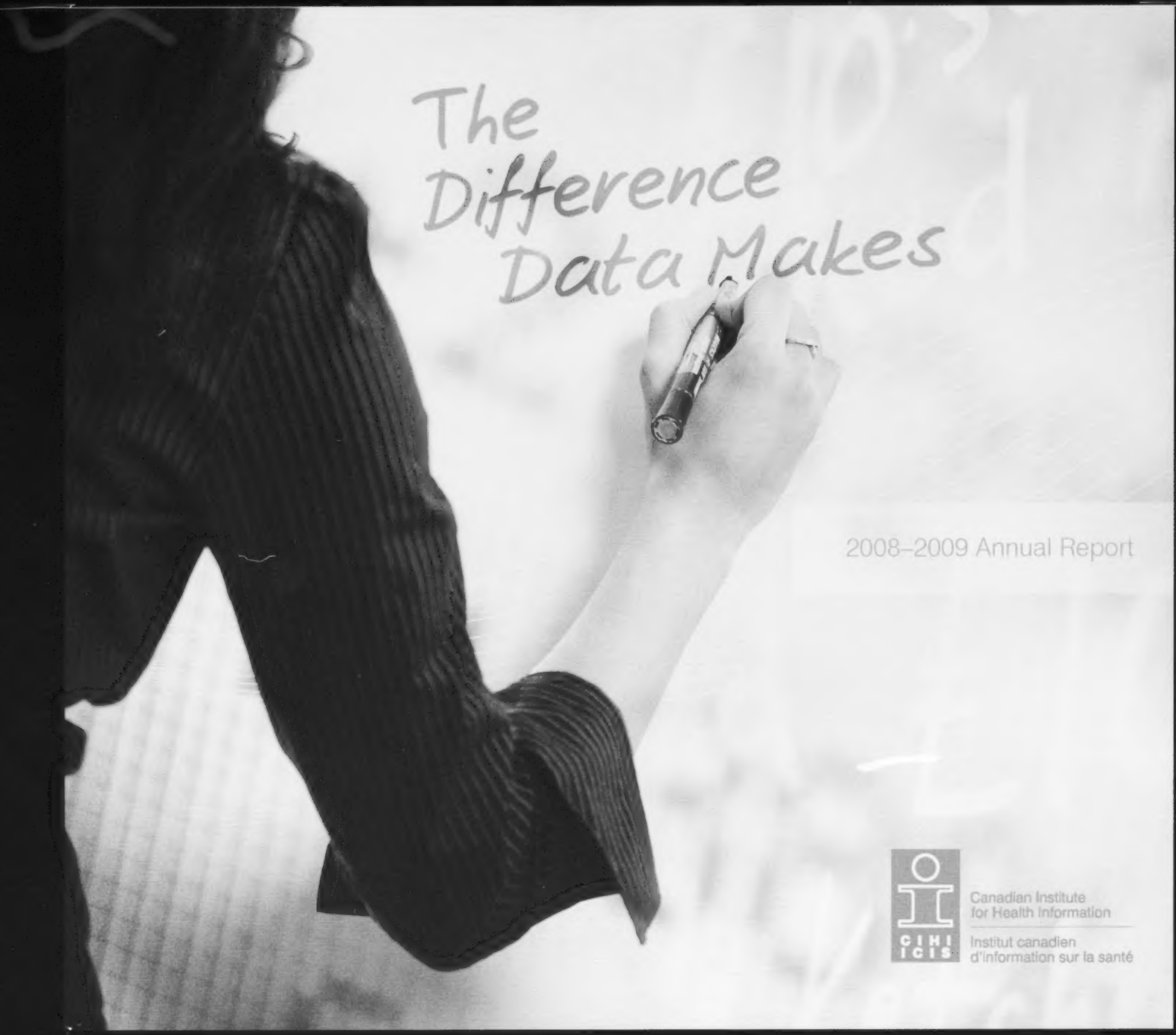

The Difference Data Makes

2008–2009 Annual Report

Canadian Institute for Health Information
Institut canadien d'information sur la santé

Who we are

Established in 1994, CIHI is an independent, not-for-profit corporation that provides essential information on Canada's health system and the health of Canadians. Funded by federal, provincial and territorial governments, we are guided by a Board of Directors made up of health leaders from across the country.

Our vision

To help improve Canada's health system and the well-being of Canadians by being a leading source of unbiased, credible and comparable information that will enable health leaders to make better-informed decisions.

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Message from our Board Chair

Health care dollars are almost always in short supply. In difficult economic times, they have a tendency to become increasingly scarce while demand continues to grow to support new ways of improving patient care and safety. Regardless of the climate, our health care leaders have a responsibility to make the best use of the dollars they're given to provide Canadians with the best possible care. We believe good decisions are based on good intelligence, not myths or ideology.

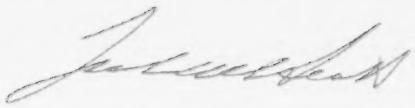
At CIHI, our job is to ensure our partners have unbiased and credible information to guide decisions around delivering the highest quality of care in a cost-effective manner. Every day, we draw data from every corner of the country and turn it into information. It is through the power of analysis that trends and relationships can be spotted, which in turn can foster change that makes a real difference.

Our focus is on collecting nationally comparable data. We believe a pan-Canadian perspective is the key to improving care locally. As a hospital, health region or jurisdiction, one of the best ways to know how you are doing is by comparing yourself to others—or with yourself over time. It is critical to identifying best practices, improving the quality and safety of care and making the most of precious health care dollars. We believe this helps create greater transparency and accountability, which builds public confidence and trust. At CIHI, we see facilitating openness through information as part of our role.

Better care is not always about spending more money. It's about spending wisely. It's about making the best use of existing resources. To that end, good information is crucial and when it's not used to its full advantage, much can be lost, including opportunities for change and improvements and, in some cases, lives.

It goes without saying that at CIHI we're passionate about data. We're excited by its power and driven every day by its potential. We've seen the kind of difference data can make and the kind of change it can foster. Every day across the country, data is driving change—and making a real difference in the lives and health of Canadians.

We remain committed this year to keep working with our partners to produce and facilitate the use of solid health information, as well as to address existing information gaps across the continuum of care.



Graham W. S. Scott
Chair of the CIHI Board

Message from our President

CIHI embarked on an ambitious work plan last year, and I am proud to say it was a successful and productive 12 months. Across the health care system, our data and health research continue to support decision-making on policies, programs and practices. They are relied on to plan services, measure performance, build business cases and even share experiences and apply lessons that have been learned.

In the last year, our focus has been on building the foundation for meeting our new strategic directions. Some of these strategies include the need to collect more relevant and timely information relating to emergency room wait times; a multi-pronged approach to strengthen primary health care information; continued enhancements to our Portal; and creating an external analytic advisory group to strengthen CIHI's ability to provide relevant and actionable analysis.

While this report is a chance to look back, we're very excited about what lies ahead. CIHI has taken a leadership role in health system use of electronic health record (EHR) data. Work is under way across the country to create an electronic system of health records, which will see patient records ultimately follow patients wherever they seek care. That has incredible ability to improve care on the front lines, but we also believe an EHR-based system has the power to improve the health of the system as a whole. By seeing how patients use the health system, anonymous electronic health records hold enormous potential for supporting best practices, clinical research, resource planning and allocation; monitoring outcomes; and spotting and tracking adverse events—all while protecting the privacy of citizens.

CIHI is privileged to be playing an important role in this development and across Canada's health sector. In the coming year, we will continue to work hard to take health information further.

However, after five years of service, this is my last year as president and CEO of CIHI, as I recently accepted the position of associate deputy minister at Health Canada. I am proud to have seen CIHI grow into the success it has become and honoured to have worked with many health partners across the country. Together, we helped build Canada's health information system—which has become a model around the world.

Glenda Yeates
President and CEO

Our strategic directions
(2008–2009 to 2011–2012)

After in-depth consultations with our partners across the country a year ago, we determined our next set of strategic directions. These make clear where we should focus our efforts and will guide our work over the next three years:

1. More and better data

We will enhance the scope, quality and timeliness of our data holdings.

2. Relevant and actionable analysis

We will continue to produce quality information and analyses that are relevant and actionable.

3. Improved understanding and use

We will work with stakeholders to help them better understand and use our data and analyses; we will do this in a timely and privacy-sensitive manner.

This was not the first time in our history that we consulted so extensively with our stakeholders. We consider the process to be a critical part of our mandate and feel very good about what we heard. Our partners told us they regard CIHI as a credible leader in the field of health information and respect the quality of our data, analyses, education and training. Because we are neutral and independent, they trust and rely on the objectivity of our information. This is very important to us—and we work very hard each day to meet and exceed those standards and expectations.

Our accomplishments in 2008–2009

CIHI had a very successful year in 2008–2009. Based on our renewed strategic directions, we set ourselves an ambitious agenda of growth and development and we surpassed our original estimates. There were many achievements but, in the end, we judge our success primarily by what we accomplished in line with these corporate priorities.

1. More and better data

At its core, the health care system is nothing if not human. It is with us from the beginning to the end of life and is fundamental to our well-being as Canadians. It is part of our fabric, our knowledge base and our economy.

In Canada, health care represents more than 10% of Canada's gross domestic product and employs about 1 in 10 people across the country. It goes without saying that a lot of decisions are required to run a system this size—and run it safely, effectively and efficiently. And as the saying goes, the best decisions are informed decisions. That is why we are committed to expanding the comprehensiveness of our data holdings to address gaps in priority areas identified by our partners.

Emergency and ambulatory care

Ambulatory care includes medical care delivered on an outpatient basis. This means patients are registered and discharged on the same day. That's because many medical procedures don't require hospital admission (that is, an overnight stay) and can be done on an ambulatory basis, including X-rays, day surgery, biopsies, endoscopy, surgical follow-ups and clinic visits. Ambulatory care can be delivered in any number of settings, such as a physician's office, a hospital, including the emergency department, a cancer clinic or an urgent care centre.

CIHI has been receiving comparable ambulatory care data from all hospitals in Ontario since 2000. Next year, Alberta will also start submitting emergency department (ED), day surgery and other ambulatory care data to the **National Ambulatory Care Reporting System** (NACRS). This will increase the percentage of sites reporting ambulatory data to NACRS from 32% to 47%. NACRS data supports better-informed decisions by enhancing the ability to identify regional differences, changes in practice, issues around access to care and factors that cause disease.

The emergency care data as a component of ambulatory care is key. Ensuring that Canadians get the emergency care they need when they need it is a critical priority for hospitals, health care planners and providers. To address the demand to reduce the burden of data collection and for more timely information relating to ED wait times, this past year CIHI enhanced NACRS to allow for the submission of a subset of the abstract which includes ED wait time data elements. We've improved the timeliness of reporting by providing comparative ED wait time indicator reports within three weeks of month's end.

Home and continuing care

It's been widely recognized that good organization of services beyond hospital walls can help improve care right across the spectrum. From this perspective, home care and continuing care are seen as critical components of an efficient and effective health care system. We've worked hard this year to increase the breadth of our data in both of these areas.

There are now 400 facilities from Nova Scotia, Ontario, Manitoba, British Columbia and the Yukon which regularly submit data to the **Continuing Care Reporting System** (CCRS),

up from 150 facilities two years ago. These jurisdictions have also submitted data to our Home Care Reporting System (HCRS). We are supporting additional implementations across the country and expect the coverage of these systems to increase further in 2009–2010.

HCRS and CCRS are leading sources of comparative information on Canada's community-based health care services. Both are based on data collected at the point of care by clinicians who complete comprehensive, standardized clinical assessments. They capture demographics, cognitive status and behaviours, physical functioning, health conditions, medication use and nutritional status, as well as special treatments and procedures. They also include administrative information and snapshots of the services used. The information is used by clinicians for planning care and monitoring patient outcomes and at an organizational level for system planning, quality improvement and public reporting.

Pharmaceutical use

Over the last two decades, prescribed drugs have been one of the fastest-growing components of health care spending in Canada. For this reason, good information is critical to the effective management of public drug programs and pharmaceutical-related policies. Six jurisdictions are now submitting public claim–level data to the National Prescription Drug Utilization Information System (NPDUIS) Database, and we expect others to come on board in the coming months. The NPDUIS Database allows jurisdictions to measure and better understand drug use, which supports the analysis of medication efficacy.

The Difference Data Makes

With the growth of prescription drug use, it's not surprising that medication incidents are one of the most common preventable causes of patient injury. As part of our ongoing commitment to helping our partners further improve the quality of care, this year saw CIHI complete a successful pilot of its National System for Incident Reporting (NSIR), which will be deployed in the coming year. The result of collaboration with our patient safety partners, this hospital-based system facilitates reporting and sharing information on medication incidents in a secure, confidential environment. It features an integrated query tool for hospitals and health regions to analyze anonymous data from organizations across the country, as well as a communication tool to enable private, non-identifying discussion between organizations. The data will help users identify why medication incidents occur and how they might be prevented in the future. This will also lead to the development of best practices in medication use. All hospitals and health regions that participated in the successful pilot test of this new system requested the opportunity to continue with the project.

Spending and human resources

The Canadian MIS Database (CMDB) is the national data source for financial and statistical information about hospitals and health regions. The day-to-day operations data is collected according to a standardized framework known as the Standards for Management Information Systems in Canadian Health Service Organizations (MIS Standards).

With the increasing interest in comparable cost data for health care services, CIHI started work on enhancing the CMDB to allow for more frequent submission of financial and statistical information. This will provide access to more useful and timely data for analysis. We also initiated the development of a patient-specific cost database that will provide more meaningful data on the costs of inpatient and ambulatory health services.

Because the provision of quality care is very much dependent on the availability of health human resources (HHR), effective management of those resources requires accurate, comparable and timely data. Since 2004, we have been working to increase standardized national data on health professionals beyond physicians and nurses. This past year, we completed this development project. We now collect data on five professions: medical laboratory technologists, medical radiation technologists, occupational therapists, physiotherapists and pharmacists.

Primary health care

Over the last year CIHI continued to make progress on our new multi-pronged approach to strengthen primary health care (PHC) information in Canada. We advanced existing projects, including developing PHC content standards for electronic medical records (EMRs), testing mechanisms for collecting EMR data through our voluntary reporting system prototype, as well as increasing the availability of PHC data and information through new surveys and reports. More specifically, a document was produced to support efforts to improve the standardization and interoperability of PHC EMRs. We worked with interested physicians to develop and test mechanisms for extracting data from EMRs to assess data quality and inform the development of feedback reports to PHC providers.

The new CIHI-co-funded Canadian Survey of Experiences With Primary Health Care was completed, making more data available for our clients. We also produced a chartbook, which showcased how PHC information can be used to populate indicators and highlighted the need for enhanced data sources to enable more robust PHC reporting.

CIHI examined a number of means by which we could capture more and better data that would be useful in answering questions about PHC performance and the interrelationships between the many aspects of PHC and PHC service delivery characteristics. Business cases were developed and work will begin in 2009–2010 to build these new data sources, and reporting on the patient experience will continue.

Health system uses of data

To demonstrate our leadership in the area of data content standards and respond to recommendations made by the Conference of Deputy Ministers, CIHI, in collaboration with governments, Canada Health Infoway and other stakeholders, continued its work to raise awareness of the importance of using electronic health and medical record data in the health system, so as to influence the development of appropriate electronic health record solutions.

Assessing data quality

At CIHI, we're only as good as the quality of our data. One of the tools we've developed is a Data Quality Framework for assessing our databases. The framework is based on five dimensions of quality: accuracy, comparability, timeliness, usability and relevance.

One of the ways we assess the quality of our data is to compare it across different sources to see if the same information is captured. Last year we continued to work on our **Discharge Abstract Database** (DAD) reabstraction studies, in which the data collected on hospital discharges across the country was compared to the information in patient charts to see how much the two were in agreement. CIHI also completed a study of the **Canadian Organ Replacement Register** (CORR) to see whether dialysis patients' medical conditions, aside from kidney disease, are being captured accurately and given the appropriate codes in the database.

Other data developments

- ### Community mental health
  To address priority data gaps, CIHI initiated the development of a program of work related to community mental health.

- ### Wait times
  CIHI hosted a conference with senior provincial wait time measurement representatives. This led to the development of strategies and action plans to improve the consistency and comparability of provincial wait time indicators, with a focus on the five priority areas identified by the first ministers in 2004: cancer, sight restoration, heart, joint replacements and diagnostic imaging.

- ### Aboriginal health
  CIHI is forging important relationships with First Nations, Inuit and Métis organizations in order to explore opportunities to advance the development of pan-Canadian capacity in these areas.

- ### Data quality enhancements
  CIHI enhanced the quality of our data and information products through the continued implementation of our comprehensive data quality program, including production of an enhanced set of data quality reports for deputy ministers and the ongoing program of reabstraction studies.

"Without Portal, there's no way we could have done this."
—Liesje Sarnecki

Data tells the real story

When the use of health care resources started to increase across Alberta's former Edmonton-based Capital Health region, it would have been easy to assume all patients were using more health services. Analysts believed that's what they'd find when they started looking into the increase, amid concerns of sustainability.

Using Resource Intensity Weights (the expected resource use of an average patient case in a case-mix group) through CIHI Portal, analysts looked at data across Capital Health, the rest of Alberta and Canada from 2002–2003 to 2006–2007.

They found that while typical patients (almost 82% of cases) used less than 52% of all resources, atypical patients, who represented only 18% of cases, were using almost half of all resources. Atypical patients include those with longer-than-usual stays, transfers to and from other facilities, deaths and patients who sign themselves out.

"We knew they used a lot, but half? That was interesting to see," says Liesje Sarnecki, Senior Economic Analyst, Forecasting and Modeling, for what is now Alberta Health Services.

What's more, the analysis showed that since 2002, average expected resource use in typical patients had actually been decreasing across Capital Health and the rest of Canada (excluding Quebec).

"It's hard to say what exactly was causing these results without drilling into the data," Sarnecki says.

Data told the real story here. Without a better understanding of how costs are distributed among different patient types, the region could have reached inappropriate conclusions about trends in average resource use. Now, decision-makers can use this information in budget and health care planning.

"Without Portal, there's no way we could have done this," Sarnecki says. "There wouldn't have been any opportunity for benchmarking. We would have seen that increase in Capital Health, but we wouldn't have known that it also occurred in the rest of Alberta and Canada. That perspective is critical."

Top 10 media products

1. Too Early, Too Small: A Profile of Small Babies Across Canada
2. 2008 Annual Report—Treatment of End-Stage Organ Failure in Canada, 1997 to 2006
3. Reducing Gaps in Health: A Focus on Socio-Economic Status in Urban Canada
4. National Health Expenditure Trends, 1975 to 2008
5. Hospital Standardized Mortality Ratio
6. Drug Expenditure in Canada, 1985 to 2007
7. Health Human Resources Week
8. Improving the Health of Canadians: Mental Health, Delinquency and Criminal Activity
9. Surgical Volume Trends, 2008—Within and Beyond Wait Time Priority Areas
10. Emergency Departments and Children in Ontario

2. Relevant and actionable analysis

Last year CIHI increased the depth and breadth of analysis and reporting with the release of more than 60 analytical products. These included special studies on priority themes for Canadians, such as access and quality of care, wait times, health outcomes, continuity of care, mental health and patient safety.

They revealed among other things that Ontario children have longer waits in emergency departments on evenings and weekends, that longer initial hospital stays are associated with fewer readmissions for schizophrenia patients and that senior women are six times more likely to be using common osteoporosis drugs than senior men.

In addition, we continued to improve and expand on our annual flagship reports that detail health spending in Canada (*National Health Expenditure Trends, 1975 to 2008*) and profile HHR. With work wrapped up on our two new HHR databases (medical radiation therapists and medical laboratory therapists), we released reports examining the supply, distribution and migration trends of five major health professions (regulated nurses, physicians, occupational therapists, pharmacists and physiotherapists). And once again, *Health Care in Canada 2008* provided one-stop shopping highlighting our key analytical work. Now in its ninth year, the review, which includes priority themes in health care research and delivery, has become a premier source of reference for our health partners.

Indicators and health system performance

Health indicators are summary measures that capture key dimensions of health status, health system performance and other contextual factors. Indicators such as in-hospital mortality after heart attack and stroke and wait times for hip fracture surgery are reported at the health region level on an annual basis. Indicators help with system management, health policy and evidence-based decision-making. These comparable pan-Canadian measures also allow regions across the country to learn from one another's best practices and identify areas for improvement by comparing apples to apples. Since their inception, and in collaboration with Statistics Canada, CIHI has reported more than 40 health and health system indicators.

This remains a priority for us. Working closely with Statistics Canada over the last year, we continued to develop, compile and disseminate new health indicators, as well as enhance the content, accessibility and comparability of existing indicators. Work was also done to improve the joint CIHI–Statistics Canada health indicators website/e-publication.

For the second year in a row, we released a report on hospital standardized mortality ratios (HSMRs), a "big-dot" indicator that allows hospitals to track their progress over time in reducing mortality rates. We continued to work with hospitals and health regions across Canada to help them better understand and use their HSMR results to identify areas for improvement in quality of care and patient safety.

Given the increasing jurisdictional interest in the hospital performance reports that CIHI produced for Ontario, we developed options around the production of a Canadian hospital reporting project based on a core set of indicators in those areas where information is available, specifically clinical care and financial performance.

Factors affecting health

Understanding what makes Canadians healthy is as important as understanding what makes them sick. Population health is an approach that looks at non-medical determinants of health—such as income, social environment, education and literacy. The Canadian Population Health Initiative (CPHI) examines patterns of health within and between population groups.

as well as evidence about what policies and programs improve health. The goal is to inform policies that reduce inequities and improve the health and well-being of Canadians.

Last year, CPHI released two reports in its mental health and resilience series. *Improving the Health of Canadians: Mental Health, Delinquency and Criminal Activity* explores mental health–related factors at the individual, family, peer and community levels that may be associated with delinquency. Focused on early identification and prevention, the research looked closely at children and youth. It also examined individuals with a mental illness currently involved with the criminal justice system and identified research gaps.

Top 10 downloads in 2008–2009

1. Health Indicators 2008 (5,299 visits)
2. Health Care in Canada 2007 (3,902 visits)
3. HSMR—Hospital Mortality Trends in Canada, 2007 (2,682 visits)
4. Health Care in Canada 2008 (2,360 visits)
5. Wait Time Tables—A Comparison by Province, 2008 (2,233 visits)
6. Drug Expenditure in Canada, 1985 to 2007 (2,082 visits)
7. Overweight and Obesity in Canada: A Population Health Perspective (1,643 visits)
8. Understanding Emergency Department Wait Times: Who Is Using Emergency Departments and How Long Are They Waiting? (1,632 visits)
9. Health Indicators 2007 (1,477 visits)
10. Canada's Health Care Providers, 2007 (1,445 visits)

Improving the Health of Canadians: Exploring Positive Mental Health looks at one way of defining positive mental health; current measures; its role in health; associated factors; and what strategies are, or may be, effective at promoting mental health at a population level.

We also released *Reducing Gaps in Health: A Focus on Socio-Economic Status in Urban Canada*. Developed in collaboration with the Urban Public Health Network, the report provided an overview of the links between socio-economic status and health, as well as novel CPHI analyses of 15 Canadian census metropolitan areas (CMAs) from coast to coast. These examined gaps within and across those CMAs for various hospitalization and self-reported health indicators.

Better tools to understand data

Creating information that is comparable across the country involves a great deal of work behind the scenes on standards, classification systems and groupings. This past year we released version 2009 of the Canadian Classification of Health Interventions (CCI) and the Canadian version of the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10-CA). This was accompanied by significant enhancements to coding standards and education on drug-resistant microorganisms, post-intervention complications, diabetes mellitus, chronic kidney disease, and epilepsy and seizures. We also enhanced the 2009 release of the ICD-10-CA electronic coding book, which we expect will accelerate the use of this product for health record coders across the country.

To incorporate the changes in the new versions of the classification systems, the acute inpatient and ambulatory care grouping methodologies—Case Mix Group+, Comprehensive Ambulatory Classification System and Day Procedure Group—were also revised for 2009. New grouping methodologies for use with the National Rehabilitation Reporting System and the Ontario Mental Health Reporting System were posted on our website. We also worked closely with our partners in all jurisdictions, providing workshops to help them understand and use our case mix grouping methodologies, as well as perform comparative analyses.

A sample of conferences hosted or co-sponsored by CIHI

- e-Health Conference
- Data Users Conference 2008
- British Columbia Knowledge Exchange Symposium
- Ontario Hospital Association Case Mix Conference
- End-of-Life Care in BC: From Knowledge to Action
- North American Collaborating Centre International Classification of Functioning, Disability and Health Conference

High-impact CIHI studies released in 2008–2009

- The annual report *Health Indicators 2008*, produced with Statistics Canada, included more than 40 comparable measures of health and health system performance for health regions, provinces and territories. This year included a special analysis on potentially preventable hospitalizations for chronic conditions, known as ambulatory care sensitive conditions. It showed hospitalizations for these conditions are higher in rural areas than urban areas and are higher for lower-income Canadians.

- *Canada's Health Care Providers, 1997 to 2006, A Reference Guide* provided new and updated data on 24 different health occupation groups, including supply and demographic trends, graduate counts and overviews of regulatory environments by province and territory.

- *Emergency Departments and Children in Ontario* was CIHI's first in-depth look at when children come to emergency departments (EDs), how long they wait and what happens at the end of their visit. It found nearly one in three children visiting the ED did so more than once in the year and 1 in 15 returned to the ED within 72 hours of their previous visit.

- *Making Sense of Health Rankings*, a special paper produced with Statistics Canada, dissected the components that make up health rankings and explored methodological risks associated with ranking exercises.

- The *Primary Health Care (PHC) Indicators Chartbook: An Illustrative Example of Using PHC Data for Indicator Reporting*, a first in Canada, looked at how primary health care information can be used to better understand primary care access and delivery.

- The special analysis *Hormone Replacement Therapy: An Analysis Focusing on Drug Claims by Female Seniors, 2000 to 2007* showed a dramatic decrease in the use of hormone replacement therapy among women age 65 and older since the 2002 Women's Health Initiative exposed health risks associated with its use.

- *Alternate Level of Care in Canada* provided a first-time look at patients in hospitals across Canada who no longer need acute care but are waiting to be discharged to a setting more appropriate to their needs.

- *Too Early, Too Small: A Profile of Small Babies Across Canada* examined risk factors for preterm and small-for-gestational-age births across Canada, as well as the hospital costs related to these births. The report showed biological factors, such as diabetes and hypertension, are more strongly associated with preterm births, whereas sociological factors are linked to small-for-gestational-age babies.

"The CIHI data is powerful and it substantiated our concerns."
—Tom Closson

CIHI data substantiates concerns

The Ontario Hospital Association (OHA) credits CIHI data for shining a spotlight on alternate level of care (ALC) patients in Ontario, emphasizing the need to continue treating ALC as a priority issue for the province's ministry of health.

"The CIHI data is powerful and it substantiated our concerns about the lack of capacity across the patient care continuum," says Tom Closson, OHA President and CEO.

Earlier this year, CIHI released *Alternate Level of Care in Canada*, its first report to look at patients who no longer need acute care but remain in hospital waiting to be discharged to more appropriate settings. The report found that on any given day, these patients occupy 5,200 hospital beds in Canada (outside Manitoba and Quebec). In Ontario, the proportion of ALC patients was higher (7%) than most other provinces.

"The report showed that Ontario was significantly more challenged," Closson says. "Rates here doubled at a time when they didn't double in the rest of Canada."

With limited care available in the community, ALC patients can back up in acute care beds, using limited, expensive resources. The lack of room for new admissions can create a domino effect of cancelled surgical procedures and longer emergency department wait times.

After initiating monthly surveys in hospitals to determine how many beds were filled by these patients, the association pushed to get the issue on the Ministry of Health and Long-Term Care's radar. CIHI's report provided solid, independent data to back up their concerns.

"We and the country view CIHI as the gold standard for data collection," he says. "Both of us saying this at the same time gave more credence to what was being said."

The Ontario government has now made addressing ALC a priority. It is working with the OHA to develop an information system to report on the province's ALC situation.

3. Improved understanding and use

At CIHI, our job isn't simply to gather data and turn it into information. We also seek to help our partners understand and use that information to answer questions and solve health system challenges.

Our education workshops, conferences and focused consultations are designed to ensure that we're sharing expertise and knowledge with those who need them most—those responsible for the delivery of health services and programs.

To improve access to our data, this past year we continued to actively promote the adoption and use of it through CIHI Portal, which holds facility-level data on the delivery of services by hospitals across the country. We held our first Portal conference for existing and potential users in the fall and added new data marts that provide users with access to financial data from MIS and ambulatory care data from NACRS. CIHI Portal uptake increased this year, with provincial launches in Manitoba, New Brunswick and Saskatchewan. Uptake in other provinces includes seven regional health authorities covering 99 sites and 23 facilities.

Because so much of what we do is online, we set out to make our website more user-friendly, with a newly designed site expected to be operational in the coming fiscal year. We launched initiatives to improve access to existing electronic reports and increase the number and functionality of eReports made available to provider organizations and health system managers.

With a growing number of requests for our information coming from a variety of sources and through a variety of entry points within the organization, we've also been working to improve our business processes and service levels to streamline data request protocols.

Planning got under way for a new in-depth stakeholder satisfaction survey. We've partnered with IBM to carry out the survey, which will capture valuable stakeholder input to help us further improve our products and services. The results will also act as a baseline, allowing us to measure and improve our own performance over time.

Privacy

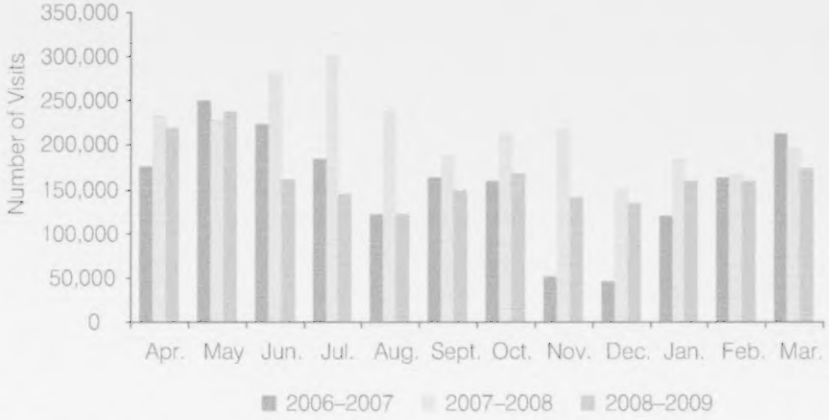
No matter what we're working on at CIHI, we remain committed to protecting the privacy of Canadians and ensuring the security of their personal health information. We successfully implemented the 2005 recommendations made by Ontario's Information and Privacy Commissioner and, following an extensive review, CIHI's status as a prescribed entity under the Ontario *Personal Health Information Protection Act* was renewed in the fall of 2008. This designation gives our data partners across the country the assurance that CIHI's privacy and security policies and overall information management practices comply with the highest standards in safeguarding the important and sensitive information we are trusted with.

Continued high volume of outreach events

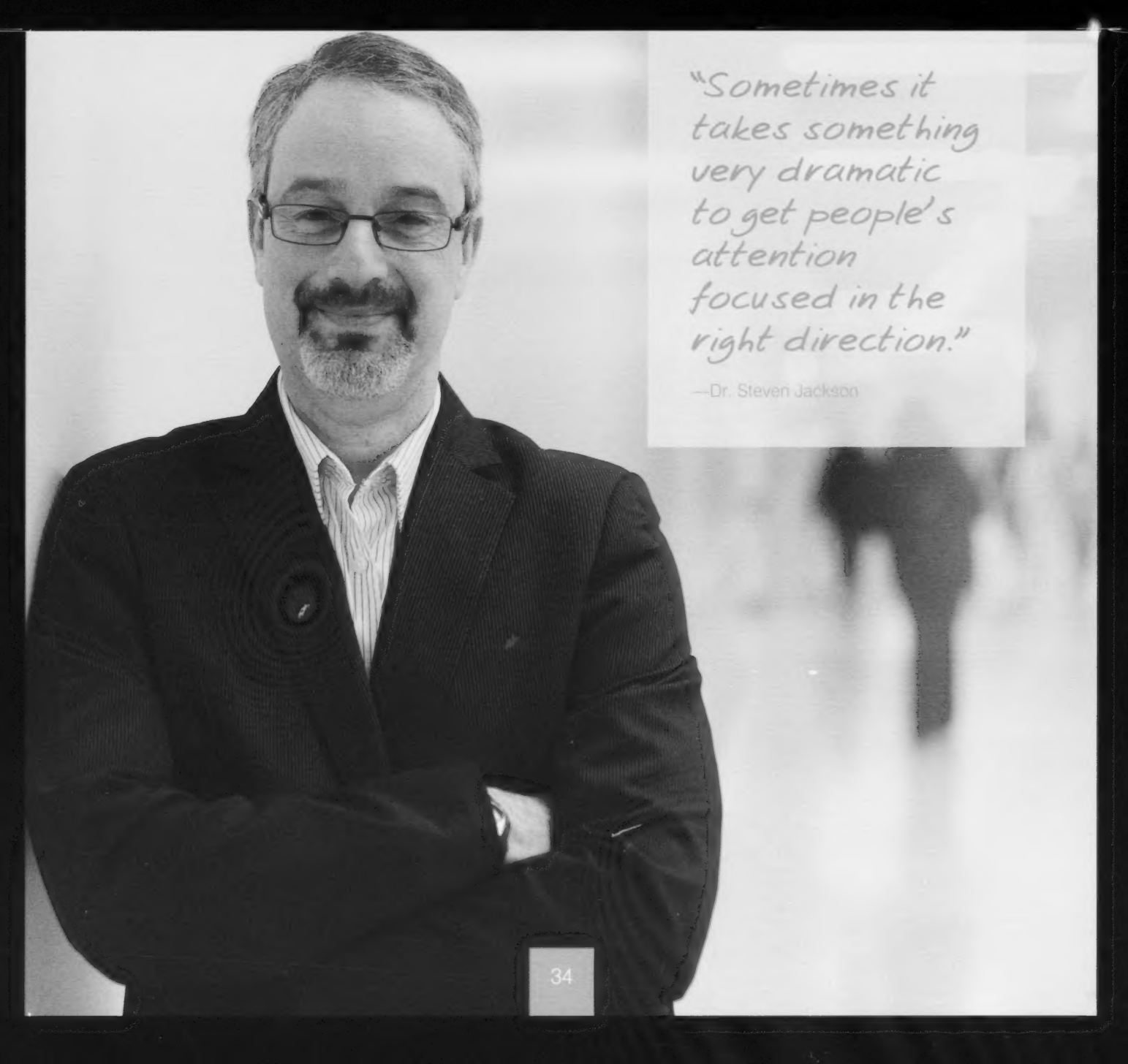
- We delivered more than 350 education events, involving the processing of about 12,000 client registrations.
- We participated in 40 trade shows and conferences across Canada.
- We made presentations to the House of Commons, the Senate and more.

Website activity

CIHI's website continues to be an important vehicle for knowledge transfer for our clients and stakeholders. In the last year, we saw an overall 24% decline in web visits. There has been a sense that CIHI's website is in need of a major refresh. The website redesign has been a major initiative this past year and the launch is expected to reverse the downward trend. Website volume is also related to the number of media releases, which was reduced in 2008–2009.



Note
November and December 2006–2007 data is not comparable due to technical issues.


"Sometimes it takes something very dramatic to get people's attention focused in the right direction."
—Dr. Steven Jackson

HSMR fosters new patient safety culture

At Ontario's Scarborough Hospital, the public release of hospital standardized mortality ratios (HSMRs) proved to be a catalyst for adopting a culture of patient safety.

Dr. Steven Jackson, Chief of Staff, says it has become a corporate priority, leading to institutional changes. Those include implementing and closely monitoring every initiative of the grassroots patient safety campaign, Safer Healthcare Now!, better chart documentation and a move toward standardized treatment practices. In addition, the way each program is accountable for patient safety was dramatically reorganized, as was the reporting and accountability structure from the front lines up to the CEO and hospital board.

"Unfortunately, sometimes it takes something very dramatic to get people's attention focused in the right direction," Jackson says of the HSMR's public release in 2007.

Scarborough's data has since improved quite a bit, but he says the hospital is committed to further improvement.

The hospital wants to move away from a culture of blame and shame towards one of accountability, openness and transparency, where everyone looks at why something happened and works to prevent it from happening again.

"We see there are things we can do better, but this has helped motivate people to take this on," Jackson says.

This focus has led to success in other areas as well. Most recently, the Ontario government found Scarborough had the best hand hygiene compliance of any provincial hospital. According to handwashing rates publicly released in May, the General campus had a 97% compliance rate, well above the provincial average of 62%. The hospital's Grace campus hit 98%.

Handwashing is the most effective way to prevent the spread of hospital-acquired infections.

Building a dynamic organization

Our successes and those still to come would not be possible without the talent, dedication and creativity of our staff. CIHI staff is deeply committed to meeting the needs of the health care sector and works hard to fill the gaps that exist across the system with relevant and actionable information. At CIHI, we strive to challenge and engage our staff and maintain a positive workplace culture.

As an organization tasked with meeting growing information needs, we've worked hard to attract new staff members and retain the members we already have. To that end, work continued last year on a number of human resources initiatives, including a recruitment strategy focused on bringing in new talent with information technology and analytical skills, providing professional development and learning opportunities for CIHI employees, and the implementation of a new job evaluation system. We also expanded the 360-degree feedback program, which now includes front-line supervisors.

This year was marked by the official opening of CIHI's new Atlantic office in St. John's, Newfoundland and Labrador. Since we opened that office, we have seen a significant increase in requests for information, data and assistance from Atlantic region clients.

Data helps heal hips faster

For three years in a row, CIHI's annual *Health Indicators* report showed that hip fracture patients in the Winnipeg Regional Health Authority (WRHA) were waiting longer for surgery than in most other Canadian health regions.

"Although we have one of the lowest rates of hip fracture on a population basis, we have one of the worst rates of getting them to the operating room within 72 hours," says Dr. Mike Moffatt, WRHA's Executive Director of Analysis and Research Support.

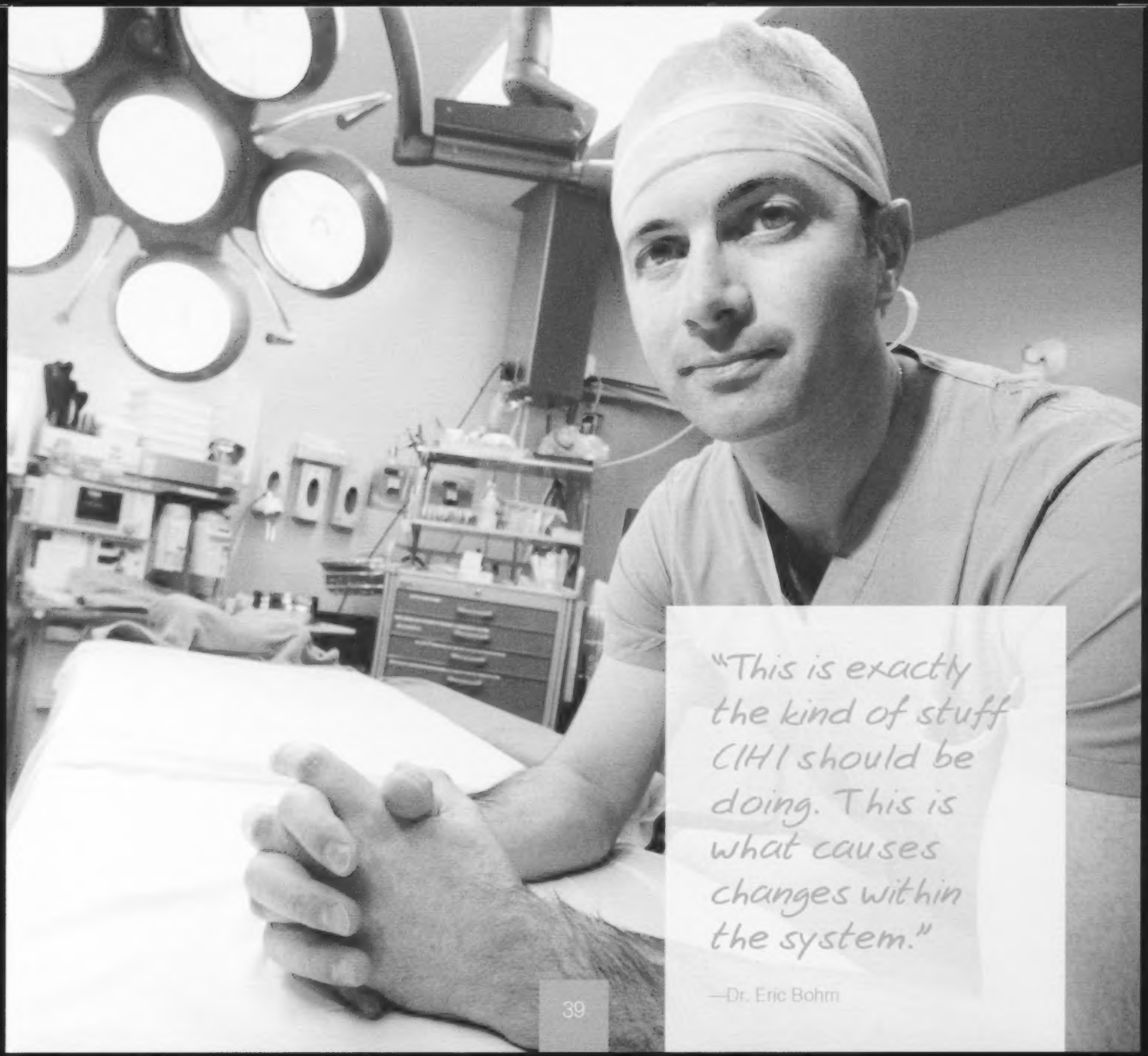
Although doctors had raised the issue before, CIHI's reports caught the attention of senior management of the region and Manitoba Health and Healthy Living. Now work is under way to reduce wait times to repair broken hips, as research shows longer waits can increase the risk of complications and death.

To stress the need for timely procedures, the health authority has held continuing education sessions for staff. The long-standing practice of easing patients off blood thinners and working to stabilize other health issues before surgery has also changed, as evidence shows hip fracture patients have better results if surgery is sooner, rather than later, regardless of blood thinner use.

The region also developed a real-time information system to provide information about hip fracture patients waiting at every facility across the region. Surgery slates were reorganized and new guidelines developed to reclassify hip fracture patients when their surgery is bumped by urgent procedures. The following day, they now go to the top of the list, says Dr. Eric Bohm, chair of WRHA's orthopedic standards committee and medical advisor to its orthopedic wait list.

While he doesn't expect the efforts of the last 18 months to show up in this year's *Health Indicators* report, Bohm says they're seeing shorter waits in their internal tracking.

"I'm quite optimistic. This is exactly the kind of stuff CIHI should be doing. This is what causes changes within the system."


"This is exactly the kind of stuff CIHI should be doing. This is what causes changes within the system."
—Dr. Eric Bohm

Looking ahead

As CIHI looks ahead to 2009–2010, our efforts and investments will be focused on the priorities set out in our strategic directions, in collaboration with our many health partners. Simply, we'll be working to produce more and better data, generate relevant and actionable analyses, and improve our clients' understanding and use of our data and information products.

This will see us expanding the number of jurisdictions submitting data to key reporting systems, including those in pharmaceuticals (NPDUIS Database and NSIR), ambulatory care (NACRS) and home care (HCRS).

We'll be developing our primary health care information program to enhance data sources and assess the feasibility of implementing a new reporting system.

The coming months will see us further explore ways to address data and analytic gaps around Aboriginal health and community mental health, as well as better ways to more systematically collect and report data on Canadians' experiences of wait times.

CIHI will continue to collaborate with the jurisdictions and Canada Health Infoway to provide leadership and help advance health system use of data from the EHR and other new systems being implemented across the country.

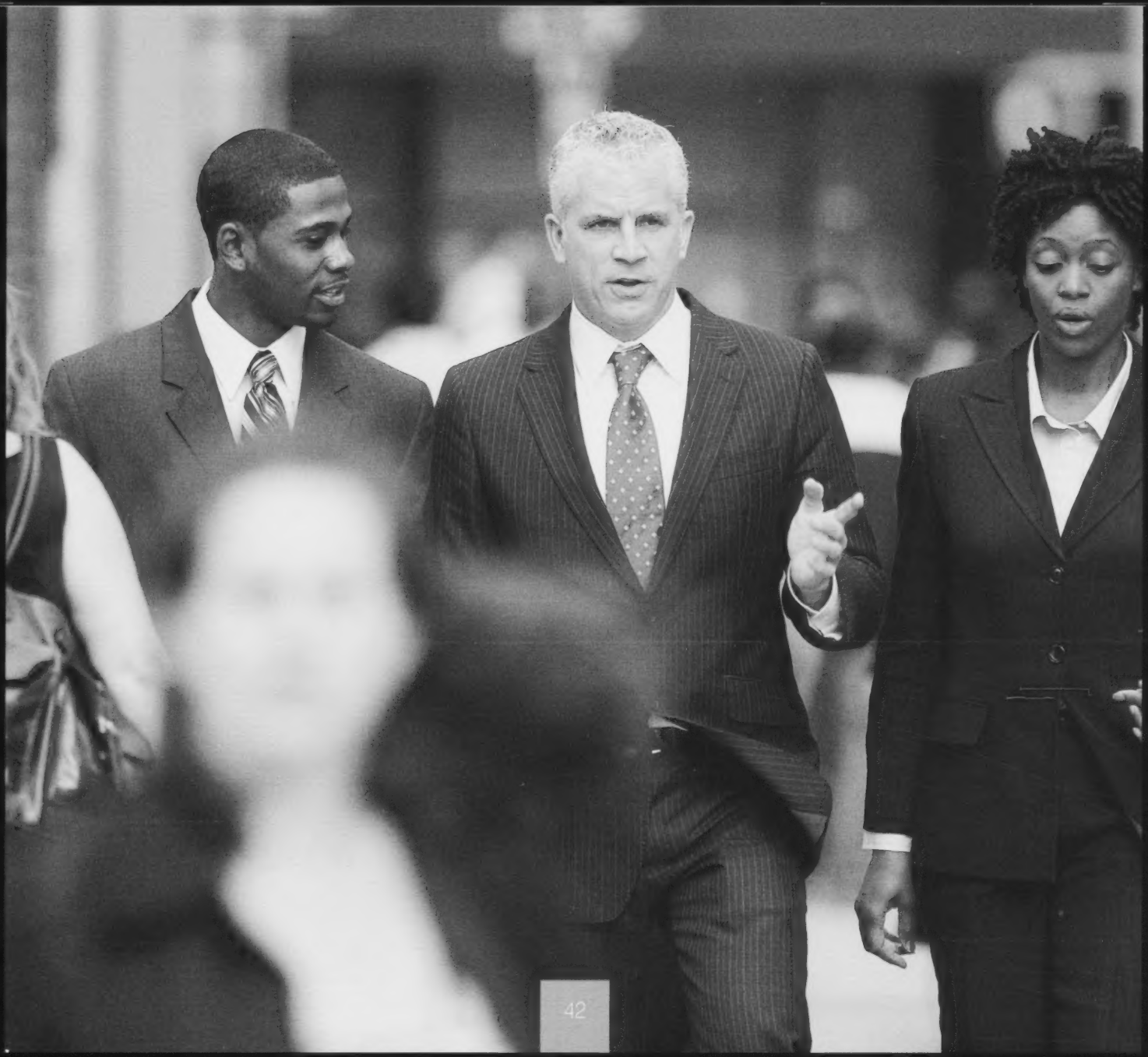
In support of our mandate to produce integrated and actionable analyses and reports, we will initiate a pilot of comparable pan-Canadian facility-level reports on hospital performance from voluntary sites, including measures that reflect clinical care and outcomes, financial health and other factors.

We'll also be focused on implementing the methodologies and infrastructure to combine data from other sets to enhance our ability to conduct analyses across the continuum of care.

Of course, we'll continue to work with our partners to develop and disseminate new health indicators, including in the area of primary health care and to facilitate the production of a Canadian hospital reporting project.

In the area of population health, we'll be developing a major report specific to CPHI's "place and health" and "reducing gaps" themes, working towards the release of two to four analytical products and initiating work on a cross-cutting report on injuries from a population health perspective.

In addition to enhancing existing holdings and developing new products and reports, we'll continue to share expertise and address our overall responsiveness. Part of this will be accomplished through a strengthened media relations program and the establishment of the new Speaker's Bureau.



Auditors' report on summarized financial statements

To the Board of Directors of the Canadian Institute for Health Information

The accompanying summarized balance sheet, statements of revenue and expenses and cash flows are derived from the complete financial statements of the Canadian Institute for Health Information as at March 31, 2009, and for the year then ended on which we expressed an opinion without reservation in our report dated May 8, 2009. The fair summarization of the complete financial statements is the responsibility of management. Our responsibility, in accordance with the applicable Assurance Guideline of The Canadian Institute of Chartered Accountants, is to report on the summarized financial statements.

In our opinion, the accompanying financial statements fairly summarize, in all material respects, the related complete financial statements in accordance with the criteria described in the guideline referred to above.

These summarized financial statements do not contain all the disclosures required by Canadian generally accepted accounting principles. Readers are cautioned that these statements may not be appropriate for their purposes. For more information on the entity's financial position, results of operations and cash flows, reference should be made to the related complete financial statements.

Ernst & Young s.r.l./s.e.n.c.r.l.

Chartered Accountants
Licensed Public Accountants

Ottawa, Canada
May 8, 2009

Balance sheet

As at March 31

	2009 $	2008 $
Assets		
Current		
Cash and cash equivalents	**12,170,262**	8,563,748
Accounts receivable	**2,953,593**	7,607,655
Prepaid expenses	**1,855,404**	1,339,336
	16,979,259	17,510,739
Investments – Roadmap	**24,475,712**	39,119,302
Capital assets	**21,967,610**	10,513,941
Other assets	**304,496**	264,546
	63,727,077	67,408,528
Liabilities		
Current		
Accounts payable and accrued liabilities	**10,502,058**	9,219,808
Unearned revenue	**2,682,358**	2,879,650
	13,184,416	12,099,458
Accrued pension benefits	**2,467,500**	3,770,217
Deferred contributions – Roadmap	**21,300,252**	39,264,909
Deferred contributions – capital assets	**18,435,767**	6,556,939
Lease inducements	**3,600,172**	2,113,035
	58,988,107	62,804,556
Net assets		
Invested in capital assets	**2,086,753**	2,221,139
Unrestricted	**2,652,217**	2,382,831
	4,738,970	4,603,970
	63,727,077	67,408,526

Statement of revenue and expenses

Year ended March 31

	2009	2008
	$	$
Revenue		
Core Plan	**15,421,872**	14,953,798
Sales	**2,088,363**	2,610,768
Funding – other	**3,939,369**	5,809,845
Health Information Initiative/Roadmap	**87,539,068**	60,050,510
Interest	**182,441**	114,495
Miscellaneous	**77,364**	76,371
	109,248,477	83,615,787
Expenses		
Compensation	**61,176,178**	50,357,731
External and professional services	**12,390,290**	6,080,090
Travel and advisory committee expenses	**5,148,340**	4,098,640
Office supplies and services	**12,792,661**	7,807,978
Computers and telecommunications	**6,016,980**	4,488,357
Research grants and contributions	**11,131,604**	10,547,333
Miscellaneous	**457,424**	161,260
	109,113,477	83,541,389
Excess of revenue over expenses	**135,000**	74,398

Statement of cash flows

Year ended March 31

	2009 $	2008 $
Operating activities		
Excess of revenue over expenses	**135,000**	74,398
Items not affecting cash:		
Amortization of capital assets	**3,896,631**	2,896,794
Amortization of lease inducements	**(467,207)**	(355,241)
Pension benefits	**(1,302,717)**	1,535,783
Amortization of deferred contributions – capital assets	**(2,991,060)**	(1,852,977)
Loss on disposal of capital assets	**218,904**	13,601
	(510,449)	2,312,358
Changes in non-cash working capital items	**5,222,952**	4,188,117
Net change in other assets	**(39,950)**	69,576
Net decrease in deferred contributions	**(2,094,769)**	(6,784,850)
Cash provided by (used in) operating activities	**2,577,784**	(214,799)
Investing activities		
Acquisition of capital assets	**(15,574,054)**	(3,598,093)
Proceeds on disposal of capital assets	**4,850**	4,137
Acquisition of investments – Roadmap	**(5,398,350)**	(19,377,989)
Proceeds on disposal of investments – Roadmap	**20,041,940**	30,683,010
Cash provided by (used in) investing activities	**(925,614)**	7,711,065
Financing activities		
Lease inducements received	**1,961,784**	—
Lease inducements reimbursed	**(7,440)**	—
Cash provided by financing activities	**1,954,344**	—
Net cash inflow	**3,606,514**	7,496,266
Cash and cash equivalents, beginning of year	**8,563,748**	1,067,482
Cash and cash equivalents, end of year	**12,170,262**	8,563,748

Complete financial statements of the Canadian Institute for Health Information for the year ended March 31, 2009, are available upon request.

Additional financial information

Established in 1994 as an independent not-for-profit organization in the Canadian health sector, CIHI has continuously grown over the past few years. Fiscal year 2008–2009 is no exception.

Funded by the federal, provincial and territorial ministries of health, CIHI's programs and projects are managed within the terms and conditions of these agreements which provide for most of CIHI's annual funding. The total revenue for 2008–2009 amounted to $109.2 million, compared to $83.6 million for the previous year. This represents a significant increase of $25.6 million and reflects primarily Health Canada's ongoing funding support towards health information–related initiatives.

Total remuneration, including any fee allowance or other benefits to CIHI's senior management team involved in the continuous accomplishment of the strategic directions, represented $3.8 million for 2008–2009.

For effective and prudent management of CIHI's investments, CIHI has hired TD Asset Management Inc. as the custodian and investment manager. At the end of March 2009, $24.5 million was invested in TD Emerald Canadian Treasury Management pooled funds, which includes low-risk financial instruments, such as GICs, treasury bills and commercial papers. CIHI adheres to investment best practices and policies similar to those endorsed by the federal government investment guidelines. An appropriate benchmark has been established to measure the performance of the funds and the investment manager. To ensure stewardship of the funds, the CIHI Finance and Audit Committee of the Board periodically reviews the results and rate of return of the funds.

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CIHI

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